

190  $\mu$ W at 10 MHz for F.O=3 and the maximum toggle frequency of 160 MHz were observed. The design of the VGC and experimental results for a device using 2  $\mu$ m design rules are described.

**Classification Code**

B1265B Logic circuits; B2570D CMOS integrated circuits; C5120 Logic and switching circuits

**Controlled Indexing**

CELLULAR ARRAYS; CMOS INTEGRATED CIRCUITS; INTEGRATED LOGIC CIRCUITS

**Element Terms**

W

**Supplementary Indexing**

gate delay 0.9 ns; power dissipation 190 microwatts; maximum toggle frequency 160 MHz; 2 micron design rules; Sharp; variable gate width; sub-nanosecond bulk CMOS gate array; loading capacitance; driving capability

**Accession Number**

1985:2528946 INSPEC

---

---

**Session Cost: \$5.26**

## Searching PAJ

[MENU](#)[NEWS](#)[HELP](#)**Search Results : 5**[Index Indication](#)[Clear](#)**Text Search**

If you want to conduct a Number Search, please click on  
the button to the right.

[Number Search](#)**Applicant, Title of invention, Abstract** — e.g. computer semiconductor

If you use the AND/OR operation, please leave a SPACE between keywords.

One letter word or Stopwords are not searchable.

[AND](#)

AND

[AND](#)

AND

[AND](#)

AND

**Date of publication of application** — e.g. 19980401 - 19980405 - 

AND

**IPC** — e.g. D01B7/04 A01C11/02

If you use the OR operation, please leave a SPACE between keywords.

[Search](#)[Stored data](#)

Copyright (C); 1998,2003 Japan Patent Office

[Home](#) | [Login](#) | [Logout](#) | [Access Information](#) | [Alerts](#) |

Welcome United States Patent and Trademark Office

[Search Session History](#)[BROWSE](#)[SEARCH](#)[IEEE XPLORE GUIDE](#)

Tue, 24 May 2005, 1:34:29 PM EST

Edit an existing query or  
compose a new query in the  
Search Query Display.

## Search Query Display

[Run Search](#)[Reset](#)

Select a search number (#)  
to:

- Add a query to the Search Query Display
- Combine search queries using AND, OR, or NOT
- Delete a search
- Run a search

## Recent Search Queries

- [#1](#) ( gate width<in>metadata ) <and> ( variable<in>metadata )  
<and> ( mosfet<in>metadata )
- [#2](#) ( gate width<in>metadata ) <and> ( variable<in>metadata )
- [#3](#) ( gate width<in>metadata ) <and> ( variable<in>metadata )
- [#4](#) ( gate width<in>metadata ) <and> ( variable<in>metadata )
- [#5](#) ( gate width<in>metadata ) <and> ( variable<in>metadata )
- [#6](#) ( gate width<in>metadata ) <and> ( variable<in>metadata )  
<and> ( mosfet<in>metadata )
- [#7](#) ( gate width<in>metadata ) <and> ( variable<in>metadata )

[Clear Session History](#)

Indexed by  
 Inspec

[Help](#) [Contact Us](#) [Privacy & ;](#)

© Copyright 2005 IEEE -

## Search Histories

### Search Histories available

1. May 24 13:36:16 2005

### Format

HTML, PDF, RTF

Search Histories are available for at least 4 days after the end of your session.

Please note: For STN Easy for Intranets users, search histories are available only within the current session.

- **HTML** format is for saving only the text, or for immediate printing from your browser.
- **PDF** format is for saving text and graphics together, and requires Adobe Acrobat Reader.
- **RTF** format is for saving text and graphics together.

Search History: May 24 13:36:16 2005

---

Search: gate width AND variable

---

Search: gate width AND variable AND cmos



## Display from INSPEC

### ANSWER 11

#### Title

Sharp applies **variable gate width** to design a sub-nanosecond bulk **CMOS gate** array.

#### Author

Torimaru, M.; Uratani, M.; Higashino, H.; Hondou, N.; Nakamura, T. (VLSI Res. Labs., Sharp Corp., Osaka, Japan)

#### Publication Source

AEU (March 1985) p.55-7. 4 refs.  
CODEN: AEUNAX ISSN: 0385-0447

#### Document Type

Journal

#### Treatment Code

Practical; Experimental

#### Country of Publication

Japan

#### Language

English

#### Abstract

A sub-nanosecond bulk-**CMOS gate** array has been developed using a new basic cell approach VGC (**variable gate width** cell). Using the VGC, the loading capacitance of the **gate** can be reduced effectively and the driving capability can be increased. Thus, a **gate** delay of 0.9 ns for F.O=2, a power dissipation of